



University of Delaware
 Physical Therapy Clinic
 Newark, DE 19716
 (302) 831-8893

**Rehab Practice Guidelines for:
 Achilles Tendon Repair**

Precautions: NMES tendon gliding:
 Prone with knee resting in >50° of flexion and ankle in full plantarflexion.
 Pad placement - medial and lateral gastrocnemius
 2,500 HZ modulated at 75 bursts per second
 2 second ramp time
 10 on / 50 second off
 10-15 contractions

Expected # of visits: **20 - 25**

<u>0-10 Days</u>	Treatment	Milestones
	No Therapy	Weight bearing as tolerated on crutches in a rigid boot immobilized with 3 heel lifts.
<u>Day 10 - Week 4</u> Begin PT 3 times/week TOTAL VISITS: 9	<ul style="list-style-type: none"> • PROM and stretching for ankle PF, Inversion, and Eversion. • Gentle manual passive stretching into DF with knee flexed. • AROM exercises for all ankle motions. • PRE's for Inversion, Eversion, and DF. • Seated BAPS (progress level as PROM progresses). • Joint mobilizations: talo-crural; subtalar; and distal tibio-fibular for maintenance of accessory motions as needed. Continue mobilizations until associated motion has full AROM. • Scar mobilization. • NMES - tendon glide protocol. • Gait training with boot to minimize deviations with discharge of crutches. • Remove one heel lift from rigid boot at first visit. 	<ul style="list-style-type: none"> • Full PROM for ankle PF, Inversion, and Eversion. • Full joint mobility for talo-crural, subtalar, and distal tibio-fibular joints. • Able to activate muscle contraction for ankle invertors, evertors, dorsiflexors, and plantarflexors. • Ambulation full weight bearing in rigid boot with two heel lifts without assistive device

<p><u>Weeks 4-6</u></p> <p>TOTAL VISITS: 10-15</p>	<ul style="list-style-type: none"> • PRE's for PF with tubing for more resistance in gastroc-soleus shortened position. • Begin exercise bike. • Weight shifting exercises on trampoline progressing to walking on trampoline. • Manual passive stretching for DF; increase intensity with knee flexed, gentle with knee in extension. • Gait training in the clinic in athletic shoes with bilateral heel lifts. • Run in pool (chest deep water). • Remove one heel lift from rigid boot at week 4 	<p><u>Week 4</u></p> <ul style="list-style-type: none"> • Ambulate short distances in the clinic in athletic shoes with bilateral 1/4 inch heel lifts. • DF to neutral. <p><u>Week 6</u></p> <ul style="list-style-type: none"> • Ambulate in athletic shoes with 1/4 inch heel lifts without assistive device. • Full DF PROM with gastrocnemius shortened by slightly flexing the knee
<p><u>Weeks 7-8</u></p> <p>2 times/week</p> <p>TOTAL VISITS: 14 - 19</p>	<ul style="list-style-type: none"> • Begin heel raises; begin bilateral and progress to unilateral. • Single leg standing balance exercises; progress from floor to trampoline. • Running on trampoline. • Lateral step-ups for dorsiflexion motion. • Gastroc-soleus stretching program. • Standing BAPS. 	<ul style="list-style-type: none"> • Unilateral heel raise. • Normal gait without heel lift in shoes. • Use of stairs foot over foot without deviation. • Independent with home program focusing on gastroc-soleus strengthening, endurance, and flexibility
<p><u>Weeks 9-11</u></p> <p>TOTAL VISITS: 18 - 23</p>	<ul style="list-style-type: none"> • Continue exercises at home and fitness facility with focus on gastroc-soleus flexibility and strengthening. • Remove heel pads from shoes. • Begin running program on treadmill at week 10 at follow-up visit and incorporate into home program. 	<ul style="list-style-type: none"> • Full gastrocnemius flexibility. • Run on treadmill. • Running Progression: • Continue from treadmill to the track, to flat road/field running, and finally hill running. Running advancement is dependent on the return of balance, agility, and the ability to run 2 miles at each level without pain or swelling. Full progression can take as long as 3 months
<p><u>Weeks 12</u></p> <p>TOTAL VISITS: 20 - 25</p>	<ul style="list-style-type: none"> • Follow up to review home program and running progression. • Progressive return to activity. • Discharge from physical therapy. 	<ul style="list-style-type: none"> • Progressive return to sports. • D/C from PT